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FORMATION OF METAL-INSULATOR-METAL CAPACITOR SIMULTANEOUSLY WITH ALUMINUM METAL WIRING LEVEL USING A HARDMASK

Abstract

Disclosed is a method of fabricating a metal-insulator-metal (MIM) capacitor. In this method, a dielectric layer is formed above a lower conductor layer and an upper conductor layer is formed above the dielectric layer. The invention then forms an etch stop layer above the upper conductor layer and the dielectric layer, and forms a hardmask (silicon oxide hardmask, a silicon nitride hardmask, etc.) over the etch stop layer. Next, a photoresist is patterned above the hardmask, which allows the hardmask, the etch stop layer, the dielectric layer, and the lower conductor layer to be etched through the photoresist.